

LEAD AND COPPER

COMPLIANCE SAMPLING COLLECTION GUIDE

Kansas Public Water Supply Systems
using the
Kansas Health and Environmental Laboratories



Prepared by
Kansas Department of Health and Environment
Bureau of Water
Public Water Supply Section

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LEAD AND COPPER SAMPLING

Lead and Copper monitoring of distribution taps in public water supply systems is part of the Lead and Copper Rule. Lead and Copper Rule monitoring requirements are stated in the Code of Federal Regulations 40 CFR 141.86, and can be found online at the Kansas Department of Health & Environment, Public Water Supply Section website <http://www.kdheks.gov/pws/index.html>.

The purpose of this document is to provide a quick guide for collecting lead and copper samples. A Lead and Copper Rule Survival Guide is available online at the KDHE, Public Water Supply Section website <http://www.kdheks.gov/pws/index.html>, and is a more extensive guide on all facets of the Lead and Copper Rule.

The Kansas Health & Environmental Laboratories (KHEL) is part of the Division of Environment under the Kansas Department of Health & Environment (KDHE).

The KHEL fee is \$8 for analyzing lead compliance samples and \$8 for analyzing copper compliance samples, for a total of \$16 for each lead and copper compliance sample.

What is in a Lead and Copper Sampling Kit from KHEL?

- 1 liter cube (collapsed into a triangle) for each required sample
- Sample submission form for each required sample
- Pink return shipping label

Lead and copper samples are collected from household taps in the system's distribution system and are usually collected by the home owner or occupant. It is strongly recommended that the system expand the one liter cube before delivery to the homeowner for sample collection. To expand the one liter cube, twist off the cap, poke a finger inside the spout so that the plastic on the other side can be pinched, then pull the sides apart until the container obtains a cube shape.

Figure 1-LC is a picture of what is contained in a lead and copper sampling kit from KHEL for each required sample. A barcode label on each sample collection bottle will have the system's KHEL account number and the bottle identification number. The pink return shipping label is to be placed on the outside of the package when ready to ship the samples back to KHEL. One sample submission form must be completed for each lead and copper sample.

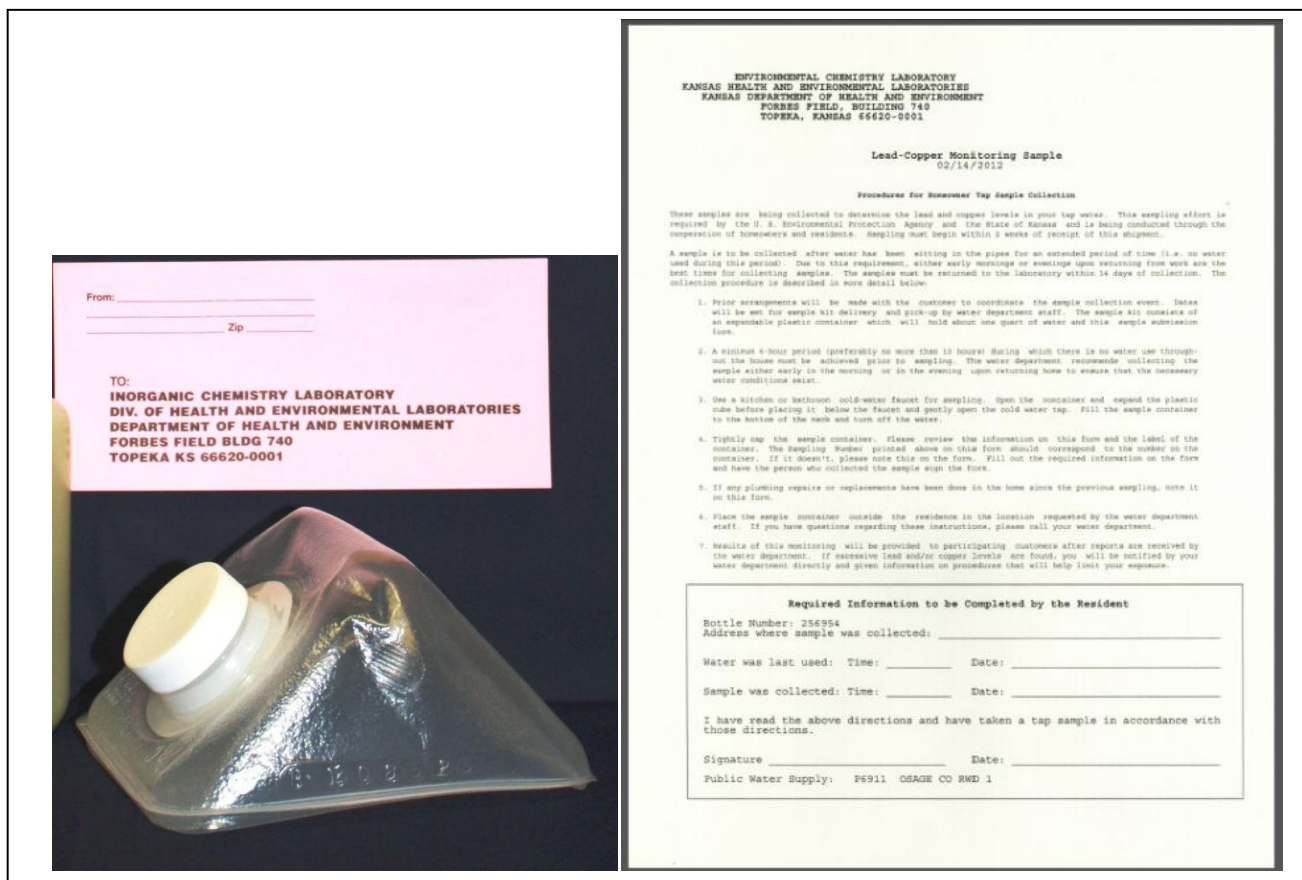


Figure 1-LC. What is included in a Lead and Copper Sampling Kit

THE LEAD AND COPPER SAMPLE SUBMISSION FORM IN DETAIL

Figure 2-LC is an example of a Lead and Copper Sample Submission Form

<p style="text-align: center;">ENVIRONMENTAL CHEMISTRY LABORATORY KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT FORBES FIELD, BUILDING 740 TOPEKA, KANSAS 66620-0001</p> <p style="text-align: center;">Lead-Copper Monitoring Sample 02/14/2012</p> <p style="text-align: center;">Procedures for Homeowner Tap Sample Collection</p> <p>These samples are being collected to determine the lead and copper levels in your tap water. This sampling effort is required by the U. S. Environmental Protection Agency and the State of Kansas and is being conducted through the cooperation of homeowners and residents. Sampling must begin within 2 weeks of receipt of this shipment.</p> <p>A sample is to be collected after water has been sitting in the pipes for an extended period of time (i.e. no water used during this period). Due to this requirement, either early mornings or evenings upon returning from work are the best times for collecting samples. The samples must be returned to the laboratory within 14 days of collection. The collection procedure is described in more detail below:</p> <ol style="list-style-type: none">1. Prior arrangements will be made with the customer to coordinate the sample collection event. Dates will be set for sample kit delivery and pick-up by water department staff. The sample kit consists of an expandable plastic container which will hold about one quart of water and this sample submission form.2. A minimum 6-hour period (preferably no more than 10 hours) during which there is no water use throughout the house must be achieved prior to sampling. The water department recommends collecting the sample either early in the morning or in the evening upon returning home to ensure that the necessary water conditions exist.3. Use a kitchen or bathroom cold-water faucet for sampling. Open the container and expand the plastic tube before placing it below the faucet and gently open the cold water tap. Fill the sample container to the bottom of the neck and turn off the water.4. Tightly cap the sample container. Please review the information on this form and the label of the container. The Sampling Number printed above on this form should correspond to the number on the container. If it doesn't, please note this on the form. Fill out the required information on the form and have the person who collected the sample sign the form.5. If any plumbing repairs or replacements have been done in the home since the previous sampling, note it on this form.6. Place the sample container outside the residence in the location requested by the water department staff. If you have questions regarding these instructions, please call your water department.7. Results of this monitoring will be provided to participating customers after reports are received by the water department. If excessive lead and/or copper levels are found, you will be notified by your water department directly and given information on procedures that will help limit your exposure. <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"><p style="text-align: center;">Required Information to be Completed by the Resident</p><p>Bottle Number: 256954 Address where sample was collected: _____</p><p>Water was last used: Time: _____ Date: _____</p><p>Sample was collected: Time: _____ Date: _____</p><p>I have read the above directions and have taken a tap sample in accordance with those directions.</p><p>Signature _____ Date: _____</p><p>Public Water Supply: P6911 OSAGE CO RWD 1</p></div>
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Figure 2-LC. Example of a Lead and Copper Sample Submission Form

Figure 3-LC indicates the header of the sample submission form which tells where the kit came from, and that the form is to be used for submitting a lead and copper monitoring sample. The address in the header is the address of KHEL and will match the address on the pink return shipping label that came with the kit.

<p>ENVIRONMENTAL CHEMISTRY LABORATORY KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT FORBES FIELD, BUILDING 740 TOPEKA, KANSAS 66620-0001</p> <p>Lead-Copper Monitoring Sample 02/14/2012</p>

Figure 3-LC. Header of the Sample Submission Form

Figure 4-LC indicates the sample collection procedures that each homeowner must follow.

<p>Procedures for Homeowner Tap Sample Collection</p> <p>These samples are being collected to determine the lead and copper levels in your tap water. This sampling effort is required by the U. S. Environmental Protection Agency and the State of Kansas and is being conducted through the cooperation of homeowners and residents. Sampling must begin within 2 weeks of receipt of this shipment.</p> <p>A sample is to be collected after water has been sitting in the pipes for an extended period of time (i.e. no water used during this period). Due to this requirement, either early mornings or evenings upon returning from work are the best times for collecting samples. The samples must be returned to the laboratory within 14 days of collection. The collection procedure is described in more detail below:</p> <ol style="list-style-type: none">1. Prior arrangements will be made with the customer to coordinate the sample collection event. Dates will be set for sample kit delivery and pick-up by water department staff. The sample kit consists of an expandable plastic container which will hold about one quart of water and this sample submission form.2. A minimum 6-hour period (preferably no more than 10 hours) during which there is no water use throughout the house must be achieved prior to sampling. The water department recommends collecting the sample either early in the morning or in the evening upon returning home to ensure that the necessary water conditions exist.3. Use a kitchen or bathroom cold-water faucet for sampling. Open the container and expand the plastic cube before placing it below the faucet and gently open the cold water tap. Fill the sample container to the bottom of the neck and turn off the water.4. Tightly cap the sample container. Please review the information on this form and the label of the container. The Sampling Number printed above on this form should correspond to the number on the container. If it doesn't, please note this on the form. Fill out the required information on the form and have the person who collected the sample sign the form.5. If any plumbing repairs or replacements have been done in the home since the previous sampling, note it on this form.6. Place the sample container outside the residence in the location requested by the water department staff. If you have questions regarding these instructions, please call your water department.7. Results of this monitoring will be provided to participating customers after reports are received by the water department. If excessive lead and/or copper levels are found, you will be notified by your water department directly and given information on procedures that will help limit your exposure.

Figure 4-LC. Sample Collection Instructions for Homeowners

Figure 5-LC has been highlighted to point out specific areas on the form.

The part highlighted in yellow is the identification number of the bottle. The bottle ID number on the container should match the bottle ID number on the sample submission form.

The part highlighted in green is the address of the sampling location. Please fill this in before giving the bottle to the homeowner. Fill out the form neatly and completely! If there is a problem with the sample, KHEL personnel will call the water system and try to resolve it. However, if they are unable to make contact the sample may be rejected and the system will have to re-collect the sample.

The part highlighted in blue is where the homeowner must write in the time and date when the household last used the water before collecting the first draw sample, and the time and date when the first draw sample was collected. This will indicate if the water sat unused in the household pipes for the required 6-8 hour period.

The part highlighted in gray is for the homeowner's signature and date to certify that they collected the sample according to the instructions that are given on the sample submission form.

The part highlighted in purple indicates the system's KHEL account number and system name.

Required Information to be Completed by the Resident	
Bottle Number:	256954
Address where sample was collected:	
Water was last used: Time:	
Date:	
Sample was collected: Time:	
Date:	
I have read the above directions and have taken a tap sample in accordance with those directions.	
Signature	
Date:	
Public Water Supply:	P6911 OSAGE CO RWD 1

Figure 5-LC. Bottle ID and Collected Sample Information on the Sample Submission Form

COLLECTING AND SHIPPING THE LEAD AND COPPER SAMPLE

It is in the system's best interest to keep a log of the bottle identification numbers and to which addresses those bottles were given. An example of such a log is given in Figure 7-LC.

Bottle ID #	Address Given to	Date Given	Date Received Back	Date of Sample Collection	Date Shipped to KHEL
211001	543 Elm Street	6/4/2012	6/7/2012	6/6/2012	6/10/2012
211002	644 Maple Street	6/4/2012	6/6/2012	6/6/2012	6/10/2012
211003	722 Kansas Ave	6/4/2012	6/8/2012	6/6/2012	6/10/2012

Figure 7-LC. Example of a Log for Lead and Copper Bottle ID Numbers

Collecting the lead and copper samples

Be sure that the homeowner understands the collection instructions.

When the system has collected all the samples from the homeowners, the system needs to check for the following criteria:

- Is the container filled to the neck of the spout with water?
- Is the lid on the bottle secure for shipping?
- Is the sample submission form completely and neatly filled out?
- Can the system ship the sample so that KHEL will receive it within 14 days from the sample collection date?

For questions or concerns about the sample collection process, call KHEL at 785-296-1620 for assistance.

Shipping the lead and copper samples

As soon as possible after collecting the sample, place the samples and the completed sample submission forms into a shipping box and tape shut. Secure the return shipping label to the package.

Pack carefully! All of the lead and copper samples do not have to be shipped at the same time or in the same box, but each sample must have the corresponding sample submission form in the same package. If too many lead and copper samples are piled in the same box, there is the possibility that the containers on the bottom can leak or break open.

If the sample container leaks it could arrive at KHEL empty or with not enough sample left to analyze. Many couriers will consider a wet package undeliverable and will discard it. Either of these scenarios would require the system to re-collect the sample.

SUMMARY OF LEAD AND COPPER SAMPLING

- Upon receipt of the sampling kit, open and review the appointed sample collection date.
- Match up the 1 liter cubes to their proper sample submission forms using the bottle ID numbers.
- Fill out the sample collection site address on the sample submission form neatly and completely before giving it to the homeowner. Keep a log of which bottle is given to which address.
- As soon as possible after collecting the sample place the completed sample submission form in the package with the sample and ship to KHEL. The sample must reach KHEL within 14 days from the date of collection.
- Calling KDHE with questions or concerns you may have is highly encouraged.

For questions about a lead and copper sampling kit or the sample collection process, call KHEL at 785-296-1620.

For questions about your lead and copper compliance or a compliance monitoring schedule, call KDHE's Bureau of Water, Public Water Supply Section at 785-296-5946.